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Appendix 1

I. Search Methods

PubMed, Scopus, and CINAHL were searched for relevant articles from December 1, 2007 to December 21, 2017.

II. PubMed Search Terms:

("Fractures, Bone"[Mesh] OR fracture[all fields] OR fractures[all fields] OR "Fracture Fixation"[Mesh] OR "Fracture Healing"[Mesh]) AND ("Clavicle"[Mesh] OR clavicle[all fields] OR clavicles[all fields] OR clavicular[all fields] OR clavicula[all fields] OR claviculas[all fields] OR "collar bone"[All Fields] OR "collar bones"[All Fields]) AND ("lateral"[all fields] OR "distal"[all fields]) OR coracoclavicular[all fields] OR "Neer type II"[all fields] OR "Neer type 2"[all fields] OR ("cortical button"[all fields] OR "suture button"[all fields] OR button[all fields] OR endobutton[all fields] OR TightRope[all fields]) AND ("Clavicle"[Mesh] OR clavicle[all fields] OR clavicles[all fields] OR clavicular[all fields] OR clavicula[all fields] OR claviculas[all fields] OR "collar bone"[All Fields] OR "collar bones"[All Fields])

III. Scopus Search Terms:

("Fractures, Bone" OR fracture OR fractures OR "Fracture Fixation" OR "Fracture Healing") AND ("Clavicle" OR clavicle OR clavicles OR clavicular OR clavicula OR claviculas OR "collar bone" OR "collar bones") AND ("lateral" OR "distal") OR (coracoclavicular OR "Neer type II" OR "Neer type 2" OR ("cortical button" OR "suture button" OR button OR endobutton OR TightRope) AND ("Clavicle" OR clavicle OR clavicles OR clavicular OR clavicula OR claviculas OR "collar bone" OR "collar bones")) AND PUBDATETXT("December 2007" OR "January 2008" OR "February 2008" OR "March 2008" OR "April 2008" OR "May 2008" OR "June 2008" OR "July 2008" OR "August 2008" OR "September 2008" OR "October 2008" OR "November 2008" OR "December 2008" OR "January 2009" OR "February 2009" OR "March 2009" OR "April 2009" OR "May 2009" OR "June 2009" OR "July 2009" OR "August 2009" OR "September 2009" OR "October 2009" OR "November 2009" OR "December 2009" OR "January 2010" OR "February 2010" OR "March 2010" OR "April 2010" OR "May 2010" OR "June 2010" OR "July 2010" OR "August 2010" OR "September 2010" OR "October 2010" OR "November 2010" OR "December 2010" OR "January 2011" OR "February 2011" OR "March 2011" OR "April 2011" OR "May 2011" OR "June 2011" OR "July 2011" OR "August 2011" OR "September 2011" OR "October 2011" OR "November 2011" OR "December 2011" OR "January 2012" OR "February 2012" OR

“March 2012” OR “April 2012” OR “May 2012” OR “June 2012” OR “July 2012” OR “August 2012” OR “September 2012” OR “October 2012” OR “November 2012” OR “December 2012” OR “January 2013” OR “February 2013” OR “March 2013” OR “April 2013” OR “May 2013” OR “June 2013” OR “July 2013” OR “August 2013” OR “September 2013” OR “October 2013” OR “November 2013” OR “December 2013” OR “January 2014” OR “February 2014” OR “March 2014” OR “April 2014” OR “May 2014” OR “June 2014” OR “July 2014” OR “August 2014” OR “September 2014” OR “October 2014” OR “November 2014” OR “December 2014” OR “January 2015” OR “February 2015” OR “March 2015” OR “April 2015” OR “May 2015” OR “June 2015” OR “July 2015” OR “August 2015” OR “September 2015” OR “October 2015” OR “November 2015” OR “December 2015” OR “January 2016” OR “February 2016” OR “March 2016” OR “April 2016” OR “May 2016” OR “June 2016” OR “July 2016” OR “August 2016” OR “September 2016” OR “October 2016” OR “November 2016” OR “December 2016” OR “January 2017” OR “February 2017” OR “March 2017” OR “April 2017” OR “May 2017” OR “June 2017” OR “July 2017” OR “August 2017” OR “September 2017” OR “October 2017” OR “November 2017”)

IV. CINAHL Search Terms:

(“Fractures, Bone” OR fracture OR fractures OR “Fracture Fixation” OR “Fracture Healing”) AND (“Clavicle” OR clavicle OR clavicles OR clavicular OR clavícula OR claviculas OR “collar bone” OR “collar bones”) AND (“lateral” OR “distal”) OR (coracoclavicular OR “Neer type II” OR “Neer type 2” OR (“cortical button” OR “suture button” OR button OR endobutton OR TightRope) AND (“Clavicle” OR clavicle OR clavicles OR clavicular OR clavícula OR claviculas OR “collar bone” OR “collar bones”))

Appendix 2
 Summary of Published Studies Used to Build Decision Model Transition State Probabilities

Study	Technique	Outcomes used for Decision Tree Probabilities
Struhl et al, 2016 ¹⁶	Suture button	8 suture buttons
Loriaut et al, 2015 ¹⁷	Suture button	21 suture buttons
Ranalletta et al, 2017 ¹⁸	Suture button	21 suture buttons
Hsu et al, 2018 ³⁸	Hook plate vs. CC loop technique	49 hook plates
Yan et al, 2017 ³⁹	Hook plate vs. autologous gracilis tendon	21 hook plates
Zhang et al, 2017 ⁴⁰	Hook plate vs. locking plate with tension band wiring	16 hook plates
Erdle et al, 2017 ⁴¹	Hook plate vs. locking plate	19 hook plates, 13 locking plates
Flinkkilä et al, 2015 ⁴²	Hook plate vs. suture button	19 hook plates, 21 suture buttons
Tiren et al, 2012 ⁴³	Hook plate	28 hook plates
Wu et al, 2011 ⁴⁴	Hook plate vs. tension band wiring	92 hook plates
Good et al, 2012 ⁴⁵	Hook plate	36 hook plates
Lee et al, 2010 ⁴⁶	Hook plate	23 hook plates
Renger et al, 2009 ⁴⁷	Hook plate	43 hook plates
Lanier et al, 2017 ⁴⁸	Hook plate vs. locking plate	12 hook plates, 36 locking plates
Chen et al, 2014 ⁴⁹	Hook plate vs. Mersilene tape	28 hook plates
Tan et al, 2012 ⁵⁰	Hook plate vs. locking plate	23 hook plates, 19 locking plates
Hsu et al, 2010 ⁵¹	Hook plate vs. tension band wiring	35 hook plates
Klein et al, 2010 ⁵²	Hook plate vs. locking plate with suture augmentation	22 hook plates
Lee et al, 2009 ⁵³	Hook plate vs. tension band wiring	32 hook plates
Lee et al, 2016 ⁵⁴	Hook plate	35 hook plates
Şükür et al, 2016 ⁵⁵	Hook plate	16 hook plates
Leu et al, 2012 ⁵⁶	Hook plate vs. tension band wiring	25 hook plates

Souza Vilela et al, 2015 ⁵⁷	Locking plate vs. anchors and Kirschner wires	9 locking plates
Beirer et al, 2014 ⁵⁸	Locking plate	20 locking plates
Tiren et al, 2013 ⁵⁹	Locking plate	7 locking plates
Yu et al, 2009 ⁶⁰	Locking plate	6 locking plates
Kalamaras et al, 2008 ⁶¹	Locking plate	9 locking plates
Fleming et al, 2015 ⁶²	Locking plate	19 locking plates
Lee et al, 2013 ⁶³	Locking plate	35 locking plates
Govindasamy et al, 2017 ⁶⁴	Locking plate	12 locking plates
Fan et al, 2017 ⁶⁵	Locking plate vs. locking plate with suture augmentation	10 locking plates
Vaishya et al, 2017 ⁶⁶	Locking plate	13 locking plates
Shin et al, 2016 ⁶⁷	Locking plate	25 locking plates
Kraus et al, 2015 ⁶⁸	Suture button	20 suture buttons
Motta et al, 2014 ⁶⁹	Suture button	14 suture buttons
Robinson et al, 2010 ⁷⁰	Suture button	16 suture buttons
Cano-Martinez et al, 2016 ⁷¹	Suture button	12 suture buttons
Blake et al, 2017 ⁷²	Suture button	17 suture buttons
Cho et al, 2017 ⁷³	Suture button	18 suture buttons
Kenyon et al, 2015 ⁷⁴	Suture button	16 suture buttons
Zhao et al, 2016 ⁷⁵	Suture button	11 suture buttons
Cisneros et al, 2017 ⁷⁶	Suture button	9 suture buttons
Dedeoglu et al, 2017 ⁷⁷	Suture button	22 suture buttons

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